

Floodplain Development Alternatives
Economic and Environmental Impact Analysis Outline
DISCUSSION DRAFT - January 31, 2002

1. Evaluation of Existing Regulations

A. Impact of 1' Rise on Existing Public Structures

Evaluate the impact of a 1' rise in flood heights on bridges, roadways and other public facilities, and the cost to replace structures designed to accommodate the 100-year flood if that flood event increases.

B. Evaluate the biological, ecological, and social impacts of developing in the floodplain on the natural functions of the riparian corridor relative to:

1. Discharge rates for conveyance of floodwater along channel overbank (loss of flow 'roughness' and increase in peak discharge)
2. Increased flow velocity and channel degradation and subsequent threats to existing development
3. Wildlife habitat and loss of connectivity
4. Water quality and loss of vegetative filters & riparian canopy
5. Soils and infiltration
6. Integrity of natural stream bed and bank
7. Quality of life and loss of green corridor
8. Other

2. Evaluation of Potential Regulations

A. Impact to development

Evaluate the economic impact of a range of alternative regulations for development in the floodplain relative to four scenarios:

1. Typical residential development on a small or limited site.
2. Typical residential development on a large site.
3. Typical commercial development on a small or limited site.
4. Typical commercial development on a large site.

This evaluation should take into account the present ability to cluster development in Lincoln through the Community Unit Plan (CUP) or Planned Unit Development (PUD) as well as the marketability of such development. It should also indicate how different solutions could be applied to properties of different sizes. The alternatives to be evaluated are:

1. No Net Rise Floodplain. Evaluate the economic impact of a 'No Net Rise' alternative that would require all development to demonstrate that it is causing no rise in the elevation of the 100-year flood.
2. Compensatory Storage in the Flood Fringe. Evaluate the impact of requiring no loss of storage in the flood fringe.
3. Evaluate the economic impact of 'Mandatory Cluster Development' (Open Space Subdivision Design) which allows for the same gross density but requires development to be clustered outside of the 100-year floodplain on a site.

B. Impact to Cost of Public Infrastructure.

Evaluate the economic impact to the cost of public infrastructure, including bridges, roadways, and other public structures, for the both the No Net Rise and Compensatory Storage Regulations Alternatives.

C. Floodplain 'Mitigation Bank' Concept and Economic Impact.

Evaluate the technical feasibility of a 'Floodplain 'Mitigation' concept which allows for development within the floodplain to 'mitigate' the loss of flood storage on a particular site at another location within the same stream reach. This analysis should include the feasibility of designating hydraulically equivalent sites as mitigation areas and an analysis of the practical steps necessary to regulate floodplain development based on such a concept. The analysis should also include the costs such 'mitigation'.